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Remarks

The Examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(4) because reference character 24 has been used to designate both closing means and a side section and reference character 18 to designate both an absorptive body and a longitudinal end section. In responding thereto, the appropriate portion of the specification has been amended. Review and acceptance is requested.

The Examiner has also objected to the abstract as being excessively long in response to which the abstract has been amended accordingly.

Claim 23 stands rejected under 35 USC 112 second paragraph as being indefinite due to multiple recitations therein. In response thereto, claim 23 has been amended accordingly.

The Examiner has rejected claims 19 through 27 under 35 USC 102(a) as being anticipated or in the alternative under 35 USC 103(a) as being obvious over Sayama '933. Claims 28 through 37 stand rejected under 35 USC 103(a) as being unpatentable over Sayama '933. In responding to these rejections, the Applicant has amended claim 19 to include the limitations of a particular range for the closing forces of the first and second closing means extracted from former claims 32, 33, 35 and 36. The invention as now claimed specifies a particular range of forces which are required in order to separate the closing means. The Applicant respectfully submits that Sayama provides insufficient motivation for this narrow range of forces for the following reasons.

Claims 33 through 37 have been rejected by the Examiner as being obvious over Sayama. In the rejection, the Examiner argues that the force required to release is a result effective variable since it affects the

fit of the diaper. The Applicant respectfully disagrees. A result effective variable is a variable whose optimization is suggested by the prior art of record (MPEP 2144.05, page 2100-149). Although Sayama provides motivation for optimization of variables affecting the fit of the diaper to a baby's body, Sayama does not provide any motivation for the values of variables which effect the ability of the diaper to stay closed when used by an active adult. The Examiner's attention is directed to paragraph 20 of the Sayama reference in which Sayama clearly states that the difference in stretch stress between the upper and lower fastening tapes prevents body discharges from leaking out of the diaper by fitting the diaper tightly about a baby's thighs while nevertheless not having to make the upper closing tape be sufficiently stretched to disturb the breathing of the baby. "Stretch stress" is therefore the result effective variable taught by Sayama and not the ability of the diaper to stay attached to an active adult, since the motions and forces involved for use by a baby are completely different than those generated by an active adult.

Moreover, even if one were to argue that the force with which the attachment tapes of the instant invention are fixed to the diaper were a result effective variable, it is not clear that a scaling of the teaching of Sayama would lead to the claimed range. In particular, the only numbers quoted by Sayama specify a stretch stress of 1.2 to 2 times greater in the lower attachment strips compared to the upper strips, when they are each stretched by 30 %. However, the associated forces with which the attachment tapes are fixed to the closing region of the diaper depend on the degree to which the tapes are stretched: the longer the stretching the greater the holding force required. Moreover, differences in stretching between the upper and lower tapes result in different attachment forces. Therefore, even if one of average skill in the art were to scale the diaper of Sayama to size an adult and to adjust the stretch stresses of the upper

and lower attachment tapes according to the teaching of Sayama in order to prevent lower leakage and enable abdominal breathing, it is not clear that this scaling would result in an attachment force for the tapes which would prevent them from being released during use by an active adult. Use of the diaper of Sayama by an incontinent adult could result in a proper fit but does not necessarily result in a diaper which remains fixed during use, since no motivation for the required force ranges claimed is given by Sayama.

The Examiner's attention is respectfully directed towards the end of page 5 to the beginning of page 6 of the instant specification in which the Applicant specifies that the term "shearing force" as recited in amended claim 19 has a very specific definition given by the test arrangement disclosed in figure 4 and the associated discussion. Therefore, the attachment forces recited in independent claim 19 are narrowly defined quantities which specify an incontinence diaper which is suitable for use by an active adult. Sayama cannot be viewed as providing motivation for these limitations, since Sayama discloses neither the actual claimed values of the forces nor the manner in which these forces are defined.

The Applicant has carried out an extensive series of tests on adults having various body sizes and weights and has surprisingly discovered that the lower closing means must have a stronger attachment force than the upper closing means. The Applicant has provided a detailed recipe to one of average skill in the art as to how to make a proper incontinence diaper which has suitable attachment properties for use by active adults. The Applicant respectfully submits that the invention as now claimed provides a significant contribution to the art, well beyond the suggestions provided by Sayama, and therefore warrants patent protection in the United States of America.

Independent claim 38 scopes down the range of attachment forces which are required. Several of the test results fall outside of these ranges but the overwhelming majority of the test results fall well within the ranges such that the ranges can be considered to be preferred. Clearly, Sayama also provides no motivation for this still narrower range. Claim 39 has been amended to include a variety of addition of limitations of claims 20, 22 and 31. The claim 20 limitation has been modified to specify the attachment means are fixed to the rear area. Although figure 1 of Sayama also proposes such an attachment scheme, Sayama indicates that is disadvantage, since the baby can intentionally release the tapes. In this sense Sayama teaches away from this additional limitation (see in particular page 2 of Sayama paragraph 17, last 10 lines thereof). The limitations of claim 22, provide a closing means area with an appropriate closing means strength. The limitations of claim 31 provide structure which is appropriate for use by an adult and direct the scope of the claims even further away from the disclosure of Sayama.

The dependent claims of record inherit the limitations of the respective base claim and are therefore similarly distinguished from the prior art of record for the reasons given.

The Applicant respectfully submits that the invention as amended is now sufficiently distinguished from the Sayama reference to warrant patenting in the United States and respectfully requests reconsideration on the part of the Examiner as well as passage to issuance.

No new matter has been added in this amendment.

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Respectfully submitted,

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